Half-Life and Wait to Spray Times for Various Herbicides

Use these charts to determine the half-life and the time needed for application prior to rainfall for the major herbicides in use at TxDOT.

Monsanto Roundup Pro	
Half-life of herbicide in contact with soil	0 days
Half-life of herbicide in water @ 105° or above	Indefinite, if solution is mixed in clean, pure water. Very short life if water is high in pH or dirty.
Annual not to exceed rates	10.6 qt./acre
Visual effects of wilting after application	Annuals: 2-3 days, perennials: 7 days or more
Wait time required prior to rainfall	1-2 hours
Formulation	Glyphosate with surfactant, water solubleliquid
Monsanto Outrider	
Half-life of herbicide incontact with soil	28 days
Half-life of herbicide in water @ 105° or above	16 days if pH is at 7.
Annual not to exceed rates	1.33 oz./acre
Visual effects of wilting after application	3-4 weeks
Wait time required prior to rainfall	1-2 hours
Formulation	Sulfosulfuron dispersible granules
Approved Aquatic Herbicide	
Half-life of herbicide in contact with soil	0 Days
Half-life of herbicide in water @ 105° or above	Indefinite, if solution is mixed in clean, pure water. Very short life if water is high in pH or dirty.
Annual not to exceed rates	N/A
Visual effects of wilting after application	Annual: 2-3 days, Perennial:. 7 days or more
Wait time required prior to rainfall	6 hours
Formulation	Glyphosate without surfactant, water soluble liquid
Dupont Oust XP	
Half-life of herbicide in contact with soil	28days
Half-life of herbicide in water @ 105° or above	6 days if pH is at 7. More days if pH is higher and fewer days if pH is lower.
Annual not to exceed rates	8 oz./acre

Visual effects of wilting after application	2-3 weeks
Wait time required prior to rainfall	1-2 hours
Formulation	Sulfometuron Methyl, dispersible granules
Dupont Escort XP	
Half-life of herbicide in contact with soil	28 days
Half-life of herbicide in water @ 105° or above	12-15 days if pH is at 7. More days if pH is higher and fewer days if pH is lower.
Annual not to exceed rates	4 oz./acre
Visual effects of wilting after application	2-3 weeks
Wait time required prior to rainfall	1-2 hours
Formulation	Metsulfuron Methyl, dispersible granules
Dow AgroSciences Transline	
Half-life of herbicide in contact with soil	23 days
Half-life of herbicide in water @ 105° or above	30 days at pH range of 5-9 at 77^0F. Would not expect this to be significantly different at 105^0F +
Annual not to exceed rates	21 oz./acre
Visual effects of wilting after application	1 hour
Wait time required prior to rainfall	.5 hours
Formulation	Clopyralid, liquid concentrate
Dow AgroSciences Pathfinder II	
Half-life of herbicide in contact with soil	28 days
Half-life of herbicide in water @ 105° or above	Does not mix with water
Annual not to exceed rates	N/A
Visual effects of wilting after application	2-3 days or more
Wait time required prior to rainfall	.5 hours
Formulation	Triclopyr, ready to use liquid
Dow AgroSciencesVista	
Half-life of herbicide in contact with soil	14 days
Half-life of herbicide in water @ 105° or above	185 days @ 68^o F would not expect this to be significantly different at 105^0F +
Annual not to exceed rates	1 1/3 pt./acre
Visual effects of wilting after application	1 day

Wait time required prior to rainfall	1 hour
Formulation	Fluroxypyr, liquid concentrate